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City of Cumberland

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April 19, 2004

FRA-99-6439-3726

Docket Management Facility
U.S. Department of Transportation
400 Seventh St., S.W.
Nassif Building, Room PL-401
Washington, DC 20590-001

Re: Comments to the Docket FRA-199-6439 Interim Final Rule
Use of Locomotive Horns at Higway-Rail Grade Crossings

Dear Sir or Madam,

The City of Cumberland respectively submits the attached comments to the Docket, FRA 1999-6439: Interim Final Rule, The Use of Locomotive Horns at Highway-Rail Grade Crossings.

Cumberland has long been a railroad city and early on highway engineers recognized the importance of separating vehicular traffic from rail traffic. On the Cumberland Terminal Subdivision, within the corporate limits of the city, there are twelve grade separations, two public at-grade crossings, and one private at-grade crossing (located within CSX's rail yard.) On the Keystone Subdivision, within the corporate limits of the city, there is one grade separation and four public at-grade crossings. On the Western Maryland Scenic Railroad, there are three grade separations and one public at-grade crossing.

Safety at highway-rail crossings has long been a priority for the City of Cumberland, the State of Maryland, and CSX. Several crossings have been closed. In October 1987, the need for a crossing watchman was eliminated at Baltimore St. due to the expert engineering design of the crossing and adjacent intersection signals, traffic flow patterns, and constant warning time detection systems. In April 1995 extensive improvements were made at four public at-grade crossings in Cumberland. Today, all are equipped with flashing lights and gates and those adjacent to signalized highway-highway intersections have the crossing signals interconnected with the highway signals along with appropriate signage forbidding certain turns when trains are approaching.

Since these improvements were made (according to data from the Federal Railroad Administration (FRA)), there has been only one highway-rail crossing accident involving a motor vehicle in Cumberland.

This safety record is remarkable considering the volume of trains that travel through Cumberland. CSX runs 25 to 30 trains per day over its Keystone

Subdivision and 7 to 10 additional trains over its Cumberland Terminal Subdivision.

This safety record is even more remarkable when one considers the fact that locomotive whistles are not blown at five of the seven public-at grade crossings in Cumberland. These five crossings are located in the central business district of Cumberland and are surrounded by residential areas.

Therefore, any regulation pertaining to locomotive horns at highway-rail crossings would be an unjustified burden to the City of Cumberland because we have already engineered our highway-rail crossings to provide an exceptional level of safety to our citizens.

We would also like to emphasize that the Interim Final Rule is based on questionable methodologies and analyses that use inaccurate data. This has been documented extensively through comments submitted to the docket, yet the Federal Railroad Administration persists on using inaccurate data. We find it remarkable that the City of Cumberland was not included as having a whistle ban despite our comments to the docket on the Notice of Proposed Rulemaking. Therefore, our excellent safety record was not included in the whistle ban crossing group.

We would also like to emphasize the inaccuracies contained in the Quiet Zone Calculator. After updating the railroad information, our QZRI became 26809 which is more than the NSRT of 16988. However, the Calculator did not permit a pre-rule Quiet Zone apparently because of a relevant collision. Using FRA's highway-rail crossing accident base on its web site, we could not find any relevant collisions at any of the affected crossings.

Because of these discrepancies, and other concerns addressed in the enclosed comments, we strongly urge FRA to table this interim final rule, verify the data, and conduct valid statistical analyses to determine the true effect of the locomotive horn in preventing highway-rail grade crossing accidents.

Thank you for the opportunity to submit comments on the proposed regulations. Please contact me if I can answer any questions or provide additional information.

Respectfully,

Jeffrey E. Repp
City Administrator

Comments by The City of Cumberland, MD
To the Docket FRA-1999-6439
Interim Final Rule
Use of Locomotive Horns at Highway-Rail Grade Crossings

1. The City of Cumberland does not believe that the Federal Railroad Administration (FRA) has met all of the requirements of the Swift Rail Development Act and its addendum.

The Swift Rail Development Act of 1994 (hereafter called "the Act"), and its addendum of 1996, required the Secretary of Transportation to develop regulations pertaining to the sounding of locomotive whistles at grade crossings; provided for the development of exceptions to the regulations; and, required for the consideration of communities with existing whistle bans. **While FRA has addressed several of our issues expressed in our comments to the NPRM, The City of Cumberland believes that the Interim Final Rule developed by the FRA still does not fully meet the requirements specified in the Act.**

The Act (Public Law 103-440, November 2, 1994) added Section 20153 to Title 49 of the United States Code. This action was taken as a result of FRA's study of the Florida nighttime whistle ban experience.

The Act states the following requirement in Section (b): **"The Secretary of Transportation shall prescribe regulations requiring that a locomotive horn shall be sounded while each train is approaching and entering upon each public highway-rail grade crossing".**

In addition, the Act provides for certain exceptions as detailed in Section (c): **"(1) In issuing such regulations, the Secretary may except from the requirement to sound the locomotive horn any categories of rail operations or categories of highway-rail grade crossings (by train speed or other factors specified by regulations).**

(A) That the Secretary determines not to present a significant risk with respect to loss of life or serious personal injury;

(B) For which use of the locomotive horn as a warning measure is impractical; or,

(C) For which, in the judgment of the Secretary, supplementary safety measures fully compensate for the absence of provided by the locomotive horn."

Section 20153 was amended on October 9, 1996 by added two sections, one of which is section (i) which states: **"In issuing regulations under this section, the Secretary**

(1) Shall take into account the interest of communities that

(A) Have in effect restrictions on the sounding of a locomotive horn at highway-rail grade crossings; or

(B) Have not been subject to the routine (as defined by the Secretary) sounding of a locomotive horn at highway-rail grade crossings;

(2) Shall work in partnership with affected communities to provide technical assistance and shall provide a reasonable amount of time for local communities to install supplementary safety measures, taking into account local safety initiatives (such as public awareness initiatives and highway-rail grade crossing traffic law enforcement

programs) subject to such terms and conditions as the Secretary deems necessary, to protect public safety; and

(3) May waive (in whole or in part) any requirement of this section (other than a requirement of this subsection or subsection (j)) that the Secretary determines is not likely to contribute significantly to public safety" (NPRM – p. 2236)

As in our response to the NPRM, The City of Cumberland would like to address several issues contained in the Swift Rail Development Act and its addendum.

Issue 1: The Swift Rail Development Act required the Secretary of Transportation to *"**prescribe regulations** requiring that a locomotive horn shall be sounded while each train is approaching and entering upon each public highway-rail grade crossing"*. It appears that FRA continues to misinterpreted the Act. The Interim Final Rule, on page 70591, states, "*The Act requires the use of locomotive horns at grade crossings, but gives FRA the authority to make reasonable exceptions*" .

Issue 2: The Act calls for "*The Secretary of Transportation*" to implement the requirements of the Act, yet it is the Federal Railroad Administration (FRA) that has authored the proposed rule. Historically, the Federal Highway Administration (FHWA) has been the administration responsible for overseeing the safety of motorists on our nation's roadways. Their engineers are trained in highway safety, while FRA's personnel are trained in railroad safety and do not have specific training in highway transportation safety. The FHWA should be involved in the development of any rule or guidelines regarding highway-rail crossings; but there is no evidence to their involvement. As discussed elsewhere, the methodology and procedures used by FRA to develop the Interim Final Rule are not according to standard highway traffic engineering principles.

Issue 3: The Act provides for the exception "*from the requirement to sound the locomotive horn any categories of rail operations or categories of highway-rail grade crossings (by train speed or other factors specified by regulation) that the Secretary determines not to present a significant risk with respect to loss of life or serious personal injury*". The FRA has incorporated a means of considering the safety record of an existing "Quiet Zone" by permitting a Quiet Zone if the Quiet Zone Risk Index (QZRI) is more than the National Significant Risk Threshold (NSRT) but less than twice the NSRT and if no relevant collisions have occurred in the past five years. The City of Cumberland applauds the FRA for taking our comment regarding safety records into consideration. However, as discussed elsewhere, the City of Cumberland disagrees with the definition of "relevant collision" and believes that the five year provision is arbitrary.

Issue 4: The Act provides for the exception "*from the requirement to sound the locomotive horn any categories of rail operations or categories of highway-rail grade crossings (by train speed or other factors specified by regulation) for which the locomotive horn is impractical*". The City of Cumberland appreciates the FRA for considering our comments to this exception in the Interim Final Rule. We suggested that the blowing of locomotive whistles on the Keystone Subdivision in Cumberland would indeed be impractical as there are four public at-grade crossings on this section of track through the city within ½ mile. The FRA has reduced the "twenty second rule" to permit locomotive engineers to sound their whistles a minimum of fifteen seconds in advance of a crossing. Furthermore, the Interim Final Rule permits the locomotive engineer to vary the pattern "as necessary where crossings are spaced closely together." At a train operating speed of 15 mph through Cumberland, there would be some relief from a continuous sounding of the whistle throughout this area. However, as discussed elsewhere, the City of Cumberland questions whether this section of the rule will be consistently applied.

Issue 5: The Swift Rail Development Act provides for the exception "*from the requirement to sound the locomotive horn any categories of rail operations or categories of highway-rail grade crossings (by train speed or other factors specified by regulation) for which, in the judgment of the Secretary, supplementary safety measures fully compensate for the absence of the warning provided by the*

locomotive horn". The City of Cumberland does not believe that the FRA has adequately addressed this section of the law. Our safety record demonstrates that the five crossings subject to our whistle ban ordinance have been designed to provide a level of safety that does fully compensate for the absence of the warning provided by the locomotive horn. In other words, the warning devices and other safety measures presently employed at our crossings do compensate for the warning provided by the locomotive horn. The supplementary safety measures defined in the Interim Final Rule are not needed at our crossings, and may not be needed at other quiet zones either. As discussed in detail elsewhere, the City of Cumberland takes issue with the methodology and data used by FRA to define how a safety measure compensates for the absence of the warning provided by the locomotive horn.

- The data on which the analysis is based in not accurate: The City of Cumberland's "quiet zone" and our excellent safety record was not included in FRA's analysis of the effective of whistle bans on highway-rail crossing safety
- The methodology of developing effectiveness rates is not based on sound traffic engineering principles
- The supplementary safety measures recommended in the Interim Final Rule have not been tested in the field as to their safety benefits and costs

Issue 6: In the amendment of Section 20153 to the Swift Rail Development Act, the Secretary was instructed to, when issuing regulations, *"take into account the interest of communities that (A) have in effect restrictions on the sounding of a locomotive horn at highway-rail grade crossings; or (B) have not been subject to the routine (as defined by the Secretary) sounding of a locomotive horn at highway-rail grade crossings".* Furthermore, the Secretary was directed to *"work in partnership with the affected communities to provide technical assistance"* and to *"provide a reasonable amount of time for local communities to install supplementary safety measures, taking into account local safety initiatives (such as public awareness initiatives and highway-rail grade crossing traffic law enforcement programs)".* The Secretary is also given the authority, in Section 3 of the addendum, to waive the requirements of this section if they are *"not likely to contribute significantly to public safety."*

In the Interim Final Rule, the FRA has attempted to provide sufficient time for communities with existing whistle bans to comply with the regulations to establish a pre-rule Quiet Zone. However, as discussed elsewhere, the timelines presented in the Interim Final Rule for both new and pre-rule Quiet Zones are complex and difficult to follow.

2. The Interim Final Rule is based on methodologies that are not standard highway traffic engineering safety methodologies. Despite our comments, FRA continues to hold fast to the notion that safety improvements at an intersection are based solely on empirically derived effectiveness rates.

Roadway Design: The design of roadways to provide safe and efficient travel on our nation's roadways are based upon engineering standards that have been established through research and which have stood the test of time. While research is conducted to ascertain the effectiveness of various roadway safety improvements in reducing accidents, these "effectiveness rates" (or "crash reduction rates") are not used solely to engineer safety improvements at a site. Rather, this information is used along with standard traffic engineering principles by qualified traffic engineers to analyze, identify, and select safety improvements at a specific site. In other words, the effectiveness of a particular safety improvement does not necessarily dictate the use of that safety improvement at a particular site. There are a myriad of other factors that contribute to the safety of a particular site which can only be identified and resolved by a thorough investigation of the site. To presume that the implementation of a particular safety improvement at a particular site will result in a specified reduction in accidents based on empirical data alone is absurd.

Train Horn Effectiveness: FRA continues to presume that the sounding of a locomotive whistle in advance of an at-grade highway-rail grade crossing provides some **measurable** safety benefit above and beyond that provided by the traffic control devices located in advance of and at the crossing. The City of Cumberland does not protest the fact that the blowing of a horn, be it on a train or a highway vehicle,

does alert a motorist to the origin of that horn. However, the City of Cumberland does not agree with the procedures used by FRA to isolate and measure the safety benefit of a train horn.

The FRA uses the results from the research conducted by Paul Zador with Westat titled Analysis of the Safety Impact of Train Horn Bans at Highway-Rail Grade Crossings: An Update Using 1997-2001 Data, dated August 13, 2003. The study reports effectiveness rates, as listed in Table S2 on page 11 of the report, as follows.

At crossings with passive warning devices: 74.9 %
At crossings with flashing lights: 30.9 %
At crossings with gates: 66.8 %

These effectiveness rates were derived from comparing the crossings with whistle bans to those without whistle bans for the continental United States, excluding the Chicago area and Florida.

The study also reports separate effectiveness rates for the Chicago area, Table S4 on page 13 of the report, as follows:

At crossings with gates: 17.3 %

There was insufficient data to derive effectiveness rates for crossings with passive warning devices or flashing lights. These effectiveness rates were derived from comparing crossings with a whistle ban in the Chicago area to those without a whistle ban in the continental United States. Efforts to compare crossings with a whistle ban in the Chicago area to those without a whistle ban in the Chicago area resulted in unstable results.

The City of Cumberland opposes the use of these train horn effectiveness rates for several reasons:

1. The results are illogical. Why would a train horn be less effective at a crossing with flashing lights than at a crossing with passive warning devices or gates? Why would a train horn be less effective in Chicago than in the rest of the continental United States?

2. The results for the flashing light category and for the Chicago analysis are not statistically significant at the traditional 0.05 level.

3. A different type of comparison was used for the Chicago results because the type of comparison used for the continental US was not valid for the Chicago area.

4. Chicago is afforded the use of a much lower effectiveness rate than the rest of the nation. This discrepancy should be resolved using accurate data, or the rest of the nation should also utilize the Chicago effectiveness rate.

5. The study presumes that warning devices and train horns are the only factors contributing to safety at highway-rail crossings. As discussed elsewhere, the FRA has recognizes that other factors, such as Alternative Safety Measures, influence safety at highway-rail crossings.

6. The study is based on inaccurate data that is contained in the National Inventory and that on the list of crossings with existing whistle bans. (See discussion elsewhere.)

7. Locomotive engineers have the option of blowing the whistle in cases of emergency. There is no evidence that FRA reviewed the accident data for whistle ban crossings to determine if the whistle was blown for that particular accident.

3. The City of Cumberland does not believe that safety improvements at crossings are limited to the Supplementary Safety Measures and Alternative Safety Measures identified in the Interim Final Rule. There are a myriad of safety improvements that are available to the traffic engineer in selecting the most cost effective improvement at a particular site.

Supplementary Safety Measures: In order to establish a quiet zone, the Interim Final Rule requires that one or more supplementary safety measures be utilized at every crossing, which is required to have flashing lights with gates in the quiet zone unless the Quiet Zone Risk Index (QZRI) is at or below a certain level as discussed elsewhere. Each of these supplementary safety measures results in prohibiting a vehicle from transversing the crossing when a train is approaching. It is the opinion of the City of Cumberland that the FRA is requiring the sounding of the train horn unless a motorist is physically blocked from entering the crossing, (or unless a certain mathematical risk index is achieved). The City of Cumberland believes this concept is excessively prohibitive. As indicated by our excellent safety record, it is neither necessary, nor cost effective, to utilize the supplementary safety measures dictated by the FRA.

The City of Cumberland continues to oppose the effectiveness rates for the supplementary safety measures proposed by the FRA. The effectiveness rates for four quadrant gates and for gates with channelization devices are based on only one study which measured violation rates, not collision rates. The FRA converts these to collision rates based on a single study in Los Angeles. The effectiveness rates for gates with medians and for one-way streets are not based on any empirical data at all. The City of Cumberland strongly opposes basing a regulation on such limited results.

The City of Cumberland questions the specifications required for the SSM "Gates with Medians or Channelization Devices". The intent, obviously, is to prevent a motorist from driving around lowered gates. However, the FRA provides no basis for specifying a length of at least 100 feet, or if there is an intersection within 100 feet of the gate, a length of 60 feet. Nor has FRA provided justification for closing commercial driveways within 60 feet of the gate arm. A federal regulation should not be based on such arbitrary requirements.

Alternative Safety Measures: The Interim Final Rule provides for the use of Alternative Safety Measures (ASMs) defined to be modified SSMs and non-engineering ASMs such as enforcement, education, and photo enforcement. The City of Cumberland opines that FRA has agreed that safety at highway-rail crossings can be improved by means other than warning devices and train horns. This is evident in the provision for utilizing ASMs in lieu of train horns to establish a quiet zone. Interestingly, FRA has not incorporated the effectiveness of ASMs in determining the effectiveness rates of train horns and SSMs. As discussed elsewhere, the derivation effectiveness rate of 66.8 for train horns only considered the type of warning device at a crossing. It did not consider other factors, such as ASMs, that affect crossing safety.

There are a myriad of other improvements that may also "substitute for the sounding of a train horn". While the Interim Final Rule recommends an on-site engineering evaluation, it does not require one. The City of Cumberland believes that all highway-rail crossings should be evaluated by a qualified traffic engineer for the purpose of identifying and implementing safety improvements that are site specific. The traffic engineer may identify other safety improvements that are not included in this rule, e.g. sight distance and geometric improvements, Intelligent Transportation Systems, operational improvements.

No effectiveness rates are provided for ASMs. Rather the burden of proving the safety effectiveness of these improvements is laid on the local authority. The City of Cumberland opposes this approach to evaluating ASMs. Most local authorities do not have the time or resources to conduct the type of statistical analyses that would be required to obtain viable results. Furthermore, many localities do not have the expertise to conduct a valid study.

4. The Interim Final Rule is based on data contained in the National Inventory and FRA's list of crossings presently under a whistle ban ordinance. These data, along with other data, are used extensively in the interim final rule to assess the effectiveness of the train horn and to establish the various risk indices. The City of Cumberland strongly disagrees with the persistent use of inaccurate data by the FRA. We recommend that the FRA suspend the implementation of this rule until accurate data can be gathered and analyzed.

The National Inventory: The National Inventory was established in the 1970's as a joint effort between the U.S. Department of Transportation and the Association of American Railroads. FRA has served as "custodian" of the inventory. The states and railroads **voluntarily** submit updates to the FRA, thus the FRA is well aware that the data is unreliable. Nevertheless, the FRA bases its analysis of the effectiveness of the train horn and the various risk indices on this unreliable data.

List of Whistle Ban Crossings: The FRA developed a list of communities and crossings that are presently subject to a whistle ban. The City of Cumberland, which has had a whistle ban ordinance since 1966, was not included on the list. Therefore, our excellent safety record was not included in the analysis conducted by Westat.

The City of Cumberland is aware of several other discrepancies on the list of communities having whistle bans. This list contains eighteen communities in Virginia as having whistle bans. From personal contact with half of these communities, it was found that six (two-thirds of those contacted) do not have a whistle ban ordinance or their whistle ban ordinance is not observed. Furthermore, we are aware of at least one community in Virginia which has a whistle ban ordinance which was not included on FRA's list. Only one of the communities contacted were aware of the potential rule pertaining to the sounding of train horns at highway-rail crossings. The City of Cumberland questions why the FRA did not take the time to confirm the list of whistle ban communities.

5. The City of Cumberland commends the FRA for addressing communities with whistle ban ordinances which have an excellent safety record. The Interim Final Rule does so by permitting a "pre-rule Quiet Zone" to be established even if its' Quiet Zone Risk Index is above the Nationwide Significant Risk Threshold. A "pre-rule Quiet Zone" can be established in this case if the QZRI is less than twice the NSRT and if no "relevant collision" has occurred in the past five years.

Relevant Collisions: The Interim Final Rule defines a "relevant collision" as a "collision at a highway-rail grade crossing between a train and a motor vehicle, excluding the following: a collision resulting from an activation failure of an active grade crossing warning system; a collision in which there is not driver in the motor vehicle; or a collision where the highway vehicle struck the side of the train beyond the fourth locomotive unit or rail car." This is an attempt to remove from consideration collisions that would most likely have happened regardless of whether the train horn was sounded or not. The City of Cumberland suggests that the following types of collisions also be included in the term "relevant collision":

- Those in which the driver was under the influence of drugs or alcohol
- Those in which the driver committed suicide
- Those in which the vehicle was stopped, stalled, or trapped on the crossing
- Those in which the locomotive engineer, perceiving imminent danger, did indeed sound the horn

Safety record: The City of Cumberland questions the specifications of "twice the NSRT" and the five year accident free period. On what basis were these established or are they arbitrary?

New Quiet Zones: The FRA does not consider the safety record of the crossings proposed to be included in a new quiet zone. The City of Cumberland questions this. We have demonstrated that an excellent safety record can be accomplished when each crossing is engineered to provide for the safety

of the motoring public. It would appear reasonable that other communities be afforded a quiet zone if appropriate safety improvements are made at each crossing even if not on the specified Supplementary Safety Measures specified by FRA.

6. The City of Cumberland questions the validity of requiring a rule on the sounding of train horns at highway-rail crossings given the relatively few number of collisions and causalities occurring at such crossings. The City of Cumberland opines that this the federal, state, and local resources that have been thus far spent on this proposed rule have diverted resources from other more serious highway safety issues.

Safety Benefit: This rule will regulate the means of establishing a quiet zone in which train horns are not sounded at highway-rail crossings. The FRA has estimated that there are 2,415 crossings which were subject to a whistle ban as of January 1995. (This number is not accurate as discussed elsewhere.) On page 70597, the FRA states that if the train horn had sounded at these crossings, 355 collisions (169 casualties) would have been prevented in the five year period from January 1, 1996 through December 31, 2000.

The City of Cumberland believes that based on this information a federal regulation on train horns is not warranted. A great deal of time and effort has already been spent to address 355 collisions during a five year period, which equates to 71 collisions per year and 34 casualties per year. This is compared to over 15,000 accidents at all highway-rail crossings during the same time period. Thus this effort is aimed at only 2 to 3 percent of the highway-rail crossing safety issue. Furthermore, this effort is aimed at less than one tenth of one percent of all highway fatalities. While the City of Cumberland understands that FRA is responding to Congressional law, we believe that our national, state, and local resources would be better utilized to address other safety concerns.

Regulatory Impact: With regard to the cost/benefit analysis presented in the Interim Final Rule, the City of Cumberland does not believe that enough information was provided to evaluate how FRA calculated each cost and benefit. Prior to finalizing this rule, FRA should make this information public. Furthermore, we note that the costs and benefits of the regulation are calculated in aggregate, and not for individual communities. The benefits are primarily determined by a reduction in collisions, injuries, and fatalities. For some communities, such as Cumberland, the benefits would not exceed the costs because there are essentially no accidents to reduce. Rather, the costs would exceed the benefits because Cumberland would be required to implement unnecessary safety measures and make reports to the FRA.

The FRA, by its own admission, failed to account for all benefits and costs associated with this regulation. These include those associated with:

- Avoidance of derailment
- Noise reduction
- Noise increase
- Community disruption
- Property values

The City of Cumberland believes that the FRA should revise its regulatory impact analysis to include the benefits and costs associated with the items listed above as well as the following:

- Administrative costs associated with establishing quiet zones for local authorities, states and railroads
- Costs of accidents occurring at other highway-rail crossings which were not improved because monies were diverted to establish quiet zones

7. The City of Cumberland believes that the tools used by FRA to evaluate the risk at crossings within a quiet zone are unreliable.

Accident Prediction Formula: The Accident Prediction Formula is a non-linear regression model, developed in the 1980's to be used as a means of ranking crossings by risk to enable the selection of crossings for improvement. This formula was developed using information in the National Inventory. The variables included in the formula are not causative, but statistical. Merely modifying one of the variables will not necessarily reduce accidents. This is best illustrated by considering the variable, "Is highway paved". Paving a roadway will not necessarily reduce accidents at a highway-rail intersection. Rather, this is a statistical variable that is a surrogate for some other unknown causative factor. Furthermore, the accident prediction formula without the accident history variable was found not to be a reliable tool. The accident history variable was necessary to provide statistical reliability. Therefore, the accident prediction formula does not serve as an identification of factors that cause highway-rail incidents. Therefore, the use of this formula to develop risk indicies suggests that each and every variable is a causative factor.

Risk Indicies: Various risk indicies are included in the interim final rule, The City of Cumberland objects to the use of these risk indicies primarily because they are derived from the Accident Prediction Formula and utilize data from the National Inventory which is not accurate.

In addition, these risk indicies do not incorporate other safety improvements such as those presented as Supplementary Safety Measures or Alternate Safety Measures.

Interestingly, when addressing Alternate Safety Measures, the FRA requires the local authority to provide statistically valid baseline violation rates which are subject to audit. The City of Cumberland believes that the FRA is not holding itself to its own standard that it will impose on local authorities.

8. The City of Cumberland believes that the Interim Final Rule presents methodologies for establishing and maintaining new and pre-rule Quiet Zones which are cumbersome and confusing.

The FRA has made an extensive effort to meet the needs of a variety of communities which has resulted in a complex and confusing procedure for establishing a quiet zone. The City of Cumberland presents the following brief comments regarding the procedures for establishing a quiet zone.

- Local authorities are required to either designate or apply for a quiet zone requiring notification of all affected parties. However, a local authority may not know who the appropriate contacts are.

- The information to be included with the designation or application is extensive and varied. We recommend that FRA design a form suitable for each type of quiet zone designation or application so that the local authority will not overlook submitting the required information

- An updated crossing inventory form is required to be completed for each crossing to be included in the quiet zone by the local authority which has not received training in completing the form and may not have the accurate information

- The various timelines for establishing and maintaining Quiet Zones are confusing.

9. The City of Cumberland believes that the requirements for the timing of the sounding of the locomotive horn are complex.

Section 222.21, par b) specifies that the "*locomotive horn shall begin to be sounded at least 15 seconds, but no more than 20 seconds, before the locomotive enters the crossing, but in no event shall a locomotive horn sounded in accordance with paragraph (a) of this section be sounded more than one-quarter mile (1,320 feet) in advance of the nearest public highway-rail grade crossing.*"

The City of Cumberland believes that this requirement is too complex. A locomotive engineer has tremendous responsibility for the safe movement of his train, especially over highway-rail crossings. Traditionally, the engineer has been cued to begin to sound his whistle upon passing the whistle post, which has been placed to provide a twenty second advance warning for the fastest train utilizing the track. We appreciate the purpose behind this proposed revision, i.e. to reduce the unnecessary length of time the horn is sounded in advance of a crossing. However, we believe that it will be difficult for engineers to accurately assess the time and distance to each and every crossing that the locomotive passes over. Furthermore, it is unclear whether railroads are to dispose of the traditional whistle post under the revised rule. If not, then where would the whistle post be placed and what is the cost associated with moving the whistle posts, if necessary?